

RUSSELL
GROUP

Research Culture and Environment Toolkit





Acknowledgements

This report was authored by Grace Gottlieb, Stephanie Smith, Jess Cole and Adam Clarke. We would like to thank Professor Colette Fagan (University of Manchester) for her contributions to the report and all Russell Group members for their engagement with the project and for their case studies. We are very grateful to the many individuals from across the sector who took the time to have such thoughtful, engaging and constructive conversations with us to inform this work.

Introduction

The Russell Group wants to promote the best environment for UK research and researchers to thrive. Through conversations and interviews with nearly 100 representatives from across the UK academic research ecosystem, we have looked at the current state of play, identifying what is good about our research environment and culture, as well as the challenges which need to be addressed.

We have brought together these ideas and examples of good practice into a report, **'Realising Our Potential: Backing Talent and Strengthening UK Research Culture and Environment'** demonstrating some of the work Russell Group universities are doing to support a vibrant, diverse and productive research culture.

This accompanying toolkit collates all of the practical ideas and suggestions we have gathered through our research and stakeholder engagement into one place under the following themes:

1. Research careers

- Career stability
- Career progression
- Recognition and reward

2. The experience of working in research

- Wellbeing, management and support
- Visibility, sense of community and engagement

3. Inclusive and respectful environments

- Equality, diversity and inclusion (EDI)
- Preventing and addressing bullying and harassment.

The toolkit is not an exhaustive checklist, but is meant to offer flexible ideas and options for universities, funders and publishers to test, use and adapt to their own contexts as they work collaboratively to enhance the research culture and environment in the UK. Different organisations face different challenges, so initiatives which work well for some may not have the same benefits for others. Rigorous testing and evaluation, using pilot programmes and making appropriate, iterative changes will help maximise impact and deliver progress over time.

We hope the toolkit can be used to provide some pragmatic ways of implementing the high-level commitments and principles set out through existing initiatives, such as the [Concordat to Support the Career Development of Researchers](#), the [Technician Commitment](#), the [Athena Swan Charter](#) and [Race Equality Charter](#).

Many of the ideas draw on work that is already underway and making an impact on the ground; others reflect newer challenges that need attention. Our ambition is for the toolkit to be a living document which can evolve over time based on feedback from the research community. As ideas and processes evolve, all actors in the research ecosystem should work together to continue sharing feedback, learning and evidence of what works well.

1. Research careers

Career stability

[*The Concordat to Support the Career Development of Researchers*](#) encourages signatories to work collectively to make progress on systemic challenges, including seeking ways to provide more employment security for researchers, such as through reducing the use of fixed, particularly short-term, contracts. This cannot be achieved by one stakeholder group alone, so the following suggestions offer a range of ideas that universities and funders could consider collectively as practical ways to move towards the provision of longer contracts, including through consideration of how funding for research helps to shape contract lengths.

Ideas universities could explore

1. Consider moving towards the provision of longer contracts:

1.1 Use of short fixed-term contracts. As far as practical, reduce the number of academic contracts lasting one year or less, providing explanation where contracts last less than a year – for example where researchers are making use of short-term extensions or bridging funds, or parental/carers' leave cover.

1.2 Open-ended contracts for internally funded research staff. Where possible, ensure all individuals in posts supported primarily by institutional funding, rather than external funding, are employed on open-ended contracts.

1.3 Open-ended contracts for externally funded research staff. In the longer term, consider moving towards open-ended contracts as the norm for those roles which are supported predominately by external grant funding.

1.4 Senior posts. Explore using institution-own funding to invest in senior scientist/researcher roles.

1.5 Bridging funding. Explore the development of bridging funding schemes to support research teams between grant awards and ensure transparency around the allocation of this funding.

1.6 Internal job opportunities. Explore opportunities to re-deploy research staff reaching the end of a contract by using initiatives such as "talent lists" on which short-term contract holders can outline their skills.

1.7 Career pathways. Explore how career paths can be structured internally to help create a more stable and sustainable career track for research staff.

Ideas funders could explore

1. Consider how funding for research helps to shape research contract lengths and consider supporting the move towards longer contracts where appropriate. For example:

1.1 Use of short fixed-term contracts. As far as practical, work with universities and other research organisations to reduce the use of academic contracts of one year or less, for example by funding programmes such as the Higher Education Innovation Fund (HEIF) on a longer-term basis, rather than through annual allocations.

1.2 Full Economic Costs (FEC) formula for research. Consider funding projects and postgraduate research training at a higher rate of FEC, for example 90%, to help free up QR and other funding streams for strategic investments, including the provision of longer-term and open-ended contracts for research staff.

1.3 QR funding. Increase levels of QR support (and its equivalents in the devolved nations) relative to overall project funding as this is an important funding source used by institutions to support research careers.

1.4 Award duration. Explore the implications of extending research project grant lengths to a three-to-five, or even five-to-seven-year norm, or consider options to make it easier to extend grants where necessary.

1.5 Project staging. Consider the implications of providing research grants with two funding stages (using a 'green light' system) as more common practice and ensure EDI factors, such as parental leave, are taken into account in this assessment/extension process.

1.6 Funders' budget timelines. Work with government to set out research spending plans on a longer-term basis in order to provide greater certainty to research organisations.

1.7 Platform grants. Support platform grants which help sustain whole teams, rather than individuals or single projects.

Career progression

As a community, we need to take collective responsibility for supporting the training and development of researchers, ensuring that opportunities for progression are open to all, that researchers have time for professional development and they are prepared and supported for a range of different career paths.

Ideas universities could explore

1. In line with the [Concordat to Support the Career Development of Researchers](#), support career development and planning through approaches such as:

1.1 Career expectations. Helping to manage career expectations at induction, particularly for PhD students and postdoctoral researchers.

1.2 Career opportunity awareness. Raising awareness of career opportunities beyond academia and promoting a positive narrative around mobility into other sectors.

1.3 Mentorship and training. Providing mentors and training in broader skills applicable to non-academic career trajectories.

1.4 Professional development. The Concordat recommends at least 10 days of professional development for researchers pro rata per year as a minimum. Institutions could monitor how protected time for training and professional development is used, seeking feedback from researchers and their managers about whether this time is sufficient, whether more time is needed (and how much) and how this might vary between different groups.

1.5 Monitoring implementation of professional development policies. Principal Investigators (PIs) could be held accountable for ensuring the implementation and take-up of professional development commitments at group level.

1.6 Feedback. Ensuring applicants for job posts and internal promotions are provided with clear information on the process for application and feedback on outcomes.

2. Help ensure career progression is open to all, including those with caring responsibilities, by:

2.1 Flexible working options. Ensuring appropriate part-time and flexible working options are available.

2.2 Career breaks. Taking into account career breaks when assessing productivity in order to minimise the impact of family or sick leave on career progression and focusing on quality over quantity of research.

2.3 Career assessment format. Consider how resources, such as the Royal Society's [Résumé for Researchers](#), could be used to capture a researcher's skills and contributions to research when making external and internal appointments.

3. Promotion criteria. To support mobility between research and industry, consider developing promotion criteria that recognise industry and knowledge exchange (KE) experience and set out routes for progression to senior leadership roles for both research and KE professionals.

Ideas funders could explore

1. In line with the [Concordat to Support the Career Development of Researchers](#), support career development and planning through approaches such as:

1.1 Funding for career development. Providing funds for a proportion of researchers' time to focus on professional development, for example training, applying for funding, going to conferences, mentoring or exploring different career pathways.

1.2 Transition funding. Providing transition funding for early career and other research fellows to use to pursue an academic position or other careers.

1.3 Family and sick leave. Making additional funding available to cover the costs of family leave, for example by allowing researchers to apply for costed extensions for carers' leave, sick leave etc.

1.4 Feedback. Providing more comprehensive feedback to researchers when grant applications are unsuccessful to support learning and growth. If this is not possible at early grant application stages, provide data on application success rates or information on the number of applicants to a grant.

1.5 Industry training. Supporting university-industry PhD training partnerships, such as the [CASE studentships](#) supported by UKRI, where budgets allow.

2. Career assessment format. Consider how resources, such as the Royal Society's [Résumé for Researchers](#), could be used more consistently to capture a researcher's skills and contributions to research within the assessment and awarding of grants/fellowships.

Recognition and reward

Stakeholders are increasingly considering how to recognise and reward not only the quality of research outputs (and appropriate ways to assess this), but also the wider range of activities that contribute to an internationally excellent research environment such as collegiality, effective management and promoting equality, diversity and inclusion (EDI). However, across a fragmented landscape of employers, funders and publishers, existing efforts are not consistent enough to counter strong incentives in favour of more individualistic approaches. Stakeholders can work together across the sector to address this and help drive the positive behaviours and practices we want to see within research.

Ideas universities could explore

1. Consider how research culture and environment aims are built into university systems and processes, for example by:

1.1 Recruitment and promotion criteria. Ensuring research culture and environment priorities are reflected formally in hiring and promotion criteria, such as evidence of good management and collegiate working.

1.2 Internal application processes. Making research culture an integral element of application processes for internal funding and awards, such as asking for evidence of collegiality (e.g. supporting colleagues and their career development, performing peer review), effective management and leadership, open research practices and the promotion of equality, diversity and inclusion.

2. Consider promoting, providing training on, and rewarding good publishing practices, for example:

2.1 Contributor Role Taxonomy (CRedit). Adopting the CRedit taxonomy, including integrating it into institutional repositories.

2.2 DORA principles. Signing up to DORA and integrating DORA principles into hiring and promotions processes (for example recognising the value of a broad range of research outputs in assessing performance).

2.3 FAIR data. Sharing outputs openly and making data FAIR (findable, accessible, interoperable and reproduceable) where possible.

2.4 Open science. Supporting pre-registration, Registered Reports and preprints.

2.5 Peer review. Recognising and giving credit to researchers who perform peer review work.

Ideas funders could explore

1. Consider options for how research culture and environment aims could be built into the assessment of grant applications, for example by:

1.1 Assessment criteria. Asking for evidence of, and rewarding, collegiality (for example supporting colleagues and their career development, performing peer review), effective management and leadership, open research practices and the promotion of equality, diversity and inclusion.

1.2 Leadership and management. Incentivising PIs to carry out leadership and management training, for example by having assessment panels ask for evidence of good leadership/management.

2. Group grants.

Funding group grants, especially for postdoctoral researchers.

3. Registered reports.

Consider collaborating with publishers to trial the Registered Reports funding model.

4. DORA principles.

Consider signing up to DORA and integrating DORA principles into grant assessment processes, for example by recognising the value of a broad range of research outputs in assessing grants and fellowships.

“Positive relationships with colleagues and managers are an essential component of workplace wellbeing and productivity”

Recognition and reward (continued)

Ideas publishers could explore

1. Registered reports. Consider promoting Registered Reports by:

1.1 Offering Registered Reports as a mechanism for publishing research.

1.2 Collaborating with funders to trial the Registered Reports funding model.

2. Contributor Role Taxonomy (CRediT). Consider integrating the CRediT taxonomy into the publication process and consider how similar taxonomies could be applied for other disciplines.

3. Publish null results. Explore and invest in new formats for publishing null results, in collaboration with universities.

4. DORA principles. Consider signing up to DORA and integrate the DORA principles into the review process for articles and monographs.

5. Data availability statements. Consider asking authors to provide data availability statements (indicating whether research data have been shared and if so, how to access it) and publish annual figures on the proportion of publications for which data have been made available.

“Explore and invest in new formats for publishing null results, in collaboration with universities”



2. The experience of working in research

Wellbeing, management and support

Positive relationships with colleagues and managers are an essential component of workplace wellbeing and productivity. Like any sector, the quality of the workplace environment varies for researchers, both within and across institutions. For many it is a positive and supportive environment, but others report feeling isolated and in need of greater support. We need to work together across the sector to ensure managers are held properly to account for the effective management of their teams, but crucially they need to be supported and enabled to meet these expectations.

Ideas universities could explore

1. Promote, recognise and reward excellent leadership and people management. Ideas for how this could be achieved include:

1.1 Training. Making appropriate leadership and/or management training available to all research supervisors, including refresher courses.

1.2 Recognition and reward. Rewarding effective management through hiring, appraisal and promotion criteria.

1.3 Appraisals. Consider the use of 360-degree appraisals for staff to promote the importance of positive, effective relationships with colleagues at all levels.

2. Support Networks. Consider how robust support networks for postgraduate research students (PGRs) and researchers can be established and supported to help researchers build professional networks, prevent isolation and support wellbeing through creating a sense of community and belonging. Specific actions could include:

2.1 Mentoring. Providing mentoring schemes, including mentor groups and specialised mentoring schemes for underrepresented communities.

2.2 Academic supervisors. Providing second supervisors for PGRs. This could include giving postdoctoral researchers opportunities to be a second supervisor for PGRs.

2.3 Peer networks. Setting up and supporting student and early career researcher (ECR) networks and forums within and across universities, encouraging the development of networks in certain subjects and research areas.

3. Bureaucratic burden. Co-ordinate with funders to reduce the administrative burden on academics, including PIs. Priority areas could include work to streamline audit processes and move towards the provision of longer-term grants. This would reduce bureaucracy and free up time that could be used to support junior researchers and others.

Ideas funders could explore

1. Training. Encourage PIs to carry out leadership and/or management training (see 'Recognition and reward' section above).

2. Project management support. Reduce administrative burden on PIs by investing in posts such as Project Managers to support projects from award start-up to completion.

3. Bureaucratic burden. Co-ordinate with other funders to reduce the administrative burden on academics by streamlining the collection of data and information on similar issues.

4. Funding for research. Help free up PIs to focus on their management duties by considering reducing the frequency with which PIs need to re-apply for grant funding through:

4.1 Exploring extending grant lengths (see 'Award duration' above).

4.2 Supporting an increase in QR funding relative to project funding.

5. Timing of funding calls and communication. Support wellbeing and EDI by consulting with the research community on the most appropriate timing of communications around failed applications for research funding, as well as funding calls.

6. Group grants. Consider funding group grants for postdoctoral researchers in particular.

7. PhD funding. Support wellbeing by considering if more flexible approaches to PhD funding can be adopted, such as by exploring a four-year funding model.

Visibility, sense of community and engagement

All employees should be able to voice ideas and feel listened to at work. In our interviews there was a strong focus on the benefits of ensuring early career researchers (ECRs) have opportunities to increase their visibility, take on leadership roles and contribute to decision making processes. There are many ways in which the sector can support and encourage this.

Ideas universities could explore

- 1. Leadership and representation.** Consider how ECRs (including those on short contracts) can be given opportunities for visibility, leadership and decision making – both at local and university-wide level. For example, including ECR representatives on decision making committees.
- 2. Mentoring and support.** Where staff are given opportunities to act as representatives on university committees or other decision making groups, consider providing these individuals with mentoring or other induction arrangements to support those who may be new to these roles.
- 3. Consultation.** Co-create initiatives that promote positive research cultures by surveying research staff and students to seek their ideas, and by consulting regularly on efforts to improve their experience of the research environment.

Ideas funders could explore

- 1. Funding cohorts.** Consider funding PhD studentships and research fellowships as cohorts that have an associated package of support for career development and inherently provide a network, for example as is the case in the Centre for Doctoral Training (CDT)/Doctoral Training Partnership (DTP) models.
- 2. Networking and mentoring.** Consider supporting the development of researcher networking and mentoring groups.
- 3. Representation and consultation.** Think about how ECRs can be given a voice in funders' decision making processes and the development of new policies.



3. Inclusive and respectful environments

Equality, diversity and inclusion (EDI) in research

Promoting and supporting equality, diversity and inclusion (EDI) in UK research benefits individuals, organisations and the quality and impact of research. There are still barriers which need to be addressed collectively across the research system to ensure we are attracting, nurturing and retaining talented individuals from a diverse range of backgrounds, with every researcher supported and enabled to reach their full potential in an inclusive and respectful environment.

Ideas universities could explore

- 1. Career progression.** Ensure career progression is open to those from all backgrounds, including those with caring responsibilities (see 2.1 - 2.3 for universities under 'Career progression' section above for more detail).
- 2. EDI strategy and action plans.** Developing an EDI strategy and action plans for implementation can be a useful way to set goals and monitor and evaluate progress.
- 3. Mentoring.** Consider providing or trialling specialised mentoring schemes for those from underrepresented communities.
- 4. Recognition and reward.** Find ways to reward contributions to promoting equality, diversity and inclusion, such as within hiring and promotion criteria, application processes for internal funding and through other awards.
- 5. Training.** Ensuring effective EDI training is in place for staff and senior leadership teams, and consider the use of related training (such as unconscious bias, bystander and ally training).
- 6. Training for underrepresented groups.** Consider if support or training could be helpful for those from underrepresented groups to help them prepare for interviews with grant panels, such as mock interviews.
- 7. Contracts.** In line with [Athena SWAN principles](#), commit to addressing some of the potential consequences of very short-term contracts (see 'Career stability' section above).

Ideas funders could explore

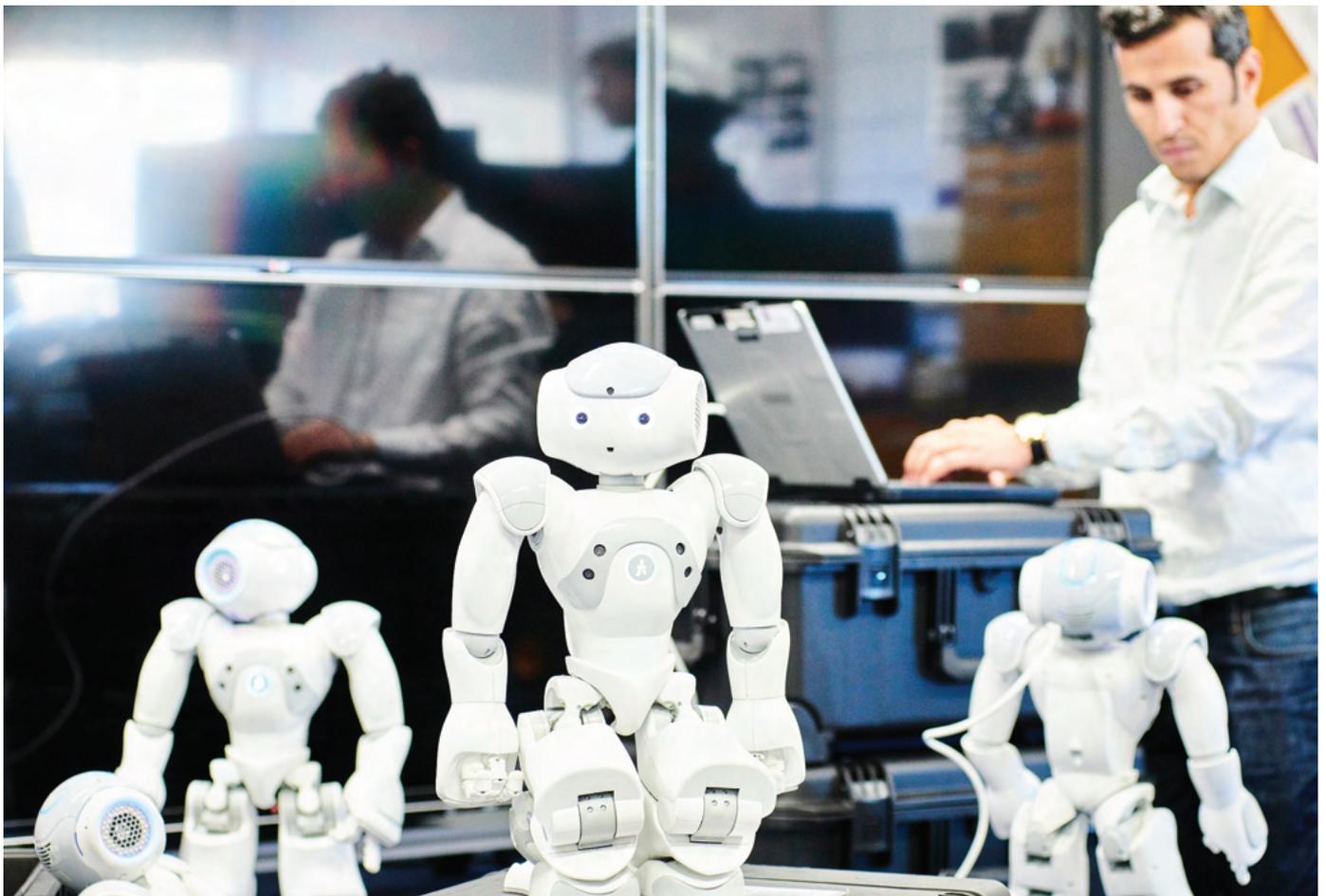
- 1. Applications criteria.** Consider how contributions to promoting equality, diversity and inclusion can be rewarded and recognised in funding applications.
- 2. Committee and panel diversity.** Consider if the composition of research committees/boards/funding panels includes a mix of individuals from a broad range of backgrounds and provide guidance to panel chairs to ensure views are heard from all members of these groups.
- 3. Name blind applications.** Consider trialling or implementing name blind applications processes for funding awards.
- 4. Targeted support for preparing applications.** Consider if targeted support, guidance or training could be provided to underrepresented groups to help them prepare for interviews with grant panels.
- 5. Targeted schemes.** Consider launching targeted PhD and fellowship schemes for those from underrepresented groups and for those returning from a career break.
- 6. EDI monitoring.** Collect data relating to equality, diversity and inclusion (for example gender and ethnicity of applicants and winners of funding) in the context of funding and fellowship applications, and consider publishing this information.
- 7. Transparent assessment.** Consider how applications and assessment processes can be made as transparent as possible for applicants by providing clear, standardised guidance to applicants on how to prepare for interviews and what to expect during panel interviews, as well as on the topics which will be covered as part of an interview and how applications will be assessed and scored.
- 8. Mentorship and leadership.** Consider supporting the development of mentorship and/or leadership programmes and networks for underrepresented groups.

Equality, diversity and inclusion (EDI) in research (continued)

Ideas publishers could explore

- 1. EDI representation.** Consider if the composition of editorial boards and the selection of peer reviewers reflects a mix of people from a broad range of backgrounds; commit to addressing underrepresentation and reporting on progress if appropriate.
- 2. EDI training.** Make training available to editorial boards and peer reviewers on topics such as equality and diversity and unconscious bias.
- 3. EDI monitoring.** Collect and publish data relating to equality, diversity and inclusion. Examples of this could include collecting and publishing data on the outcomes of peer review by gender and ethnicity.
- 4. Peer review.** Consider steps to combat potential bias in the peer review process, including testing and evaluating different models of peer review. This could include publishing peer review reports alongside articles, or allowing peer reviewers to opt-in to open identities for example.

“ Consider if the composition of editorial boards and the selection of peer reviewers reflects a mix of people from a broad range of backgrounds ”



Preventing and addressing bullying and harassment

Bullying and harassment are unacceptable in any workplace, including in research. There are certain organisational and structural characteristics of the research environment which can be conducive to bullying and harassment, such as rigid hierarchies and incentive structures. Stakeholders can work together to address these and ensure researchers feel supported and confident to report incidents of bullying and harassment if they occur, safe in the knowledge they will be capably addressed in a timely manner.

Ideas universities could explore

1. Support networks. Provide robust support networks for PGR students and researchers. Options could include:

1.1 Establishing mentoring schemes, such as mentor groups, including specialised schemes for underrepresented communities.

1.2 Providing second supervisors for PGRs. This could include giving postdoctoral researchers opportunities to be a second supervisor for PGRs.

2. Research group structures. Consider trialling alternative research group structures, including models in which managerial responsibility, accountability and recognition are distributed through a research group.

3. Line management. Ensure clear line management and accountability within university departments and teams.

4. Induction. At induction, provide researchers with information on their rights and responsibilities. This could include information on what they can expect of their manager, entitlements in relation to family leave and pay and processes for raising any concerns, including in relation to bullying and harassment.

5. Reporting systems. Provide clear, well-advertised reporting and complaint systems, with the option to report bullying and harassment anonymously as appropriate.

6. Mediators. Ensure access to an individual in a mediating role, who can support resolution of conflicts between research staff/students fairly and neutrally if appropriate.

7. Leadership. Where unacceptable behaviour has been established through the appropriate processes, senior leadership should take clear actions to reinforce a strong message that unacceptable behaviour will not be tolerated.

8. Transparency. Ensure transparency around investigation processes for bullying and harassment complaints, including publishing information on the standard/expected stages and timeline involved.

9. Contributor Role Taxonomy (CRediT). Consider integrating the CRediT taxonomy into the publication process and consider how similar taxonomies could be applied for other disciplines.

Ideas funders could explore

1. Career stability. Address environmental factors such as scarcity of resources which can increase the likelihood of negative behaviours in research groups by creating unhealthy levels of competition for funding (see 1.1 - 1.7 for funders under 'Career Stability' for more detail).

2. Bureaucratic burden. Work with other funders to streamline policies and reporting approaches on bullying and harassment to ensure consistency, and to make these policies easy to understand and implement for research organisations and researchers.

3. Group grants. Consider funding group grants for postdoctoral researchers.

4. Perverse incentives. Work with universities to prevent perverse incentives being introduced into the reporting of bullying and harassment. For example, where those found guilty of bullying and harassment are removed from live projects, work with universities to make adjustments to ensure other team members are able to continue these projects without penalty.

Image credits

Cover: Thomas Angus, Imperial College London

A PhD student working on electrochemical energy storage systems at Imperial College.

Page 2: University of Bristol

An international team has found it can attract young fish to degraded coral reefs using loudspeakers.

Page 5: University of Nottingham

Researcher wearing the magnetoencephalography (MEG) helmet system, University Park, University of Nottingham.

Page 7; Queen's University Belfast

Cystic Fibrosis research being carried out at Queen's University Belfast in the Wellcome-Wolfson Institute for Experimental Medicine.

Page 9: Durham University

Department of Computer Science, Durham University.

About the Russell Group

The Russell Group represents 24 leading universities based across every region and nation of the UK. Our research-intensive universities play an important part in the intellectual life of the UK and have huge social, economic and cultural impacts locally, nationally and around the globe. Through world-class research and education we are helping to create a dynamic economy, stronger communities and a more positive future for our country.

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